

CLAIMS

1. A method of allocated a channel in a mobile system, **characterized** by comprising the steps of
arranging in the system unallocated telecommunication channels
5 between a base station controller and a base station,
allocated in call set-up at least one of said telecommunication
channels to the base station handling the call, and
controlling the base station controller to transmit information to the
base station on the telecommunication channel allocated thereto.
- 10 2. A method as claimed in claim 1, **characterized** in that
said telecommunication channels are circuit-switched and that in the method:
said telecommunication channels are classified on the basis of their
characteristics into at least two categories, i.e. primary telecommunication
channels and secondary telecommunication channels, and
15 in call set-up, a primary telecommunication channel, if available, is
allocated to the base station, otherwise a free secondary telecommunication
channel is allocated thereto.
- 20 3. A method as claimed in claim 2, **characterized** in that
said free telecommunication channels are classified into categories on the ba-
sis of their data transmission capacity or quality such that the primary tele-
communication channels have larger data transmission capacity or they are of
better quality than the secondary telecommunication channels.
- 25 4. A mobile system, which comprises
a base station controller (BSC) and
at least a first and a second base station (BTS1, BTS2), which
comprise transceiver units (TRX1 to TRX3) for establishing a telecommunica-
tion connection by radio signals to the subscriber terminals located in the base
station coverage area and switching means (S1 to S5) for switching the base
station transceiver units onto a particular channel of a plurality of optional tele-
30 communication channels between the base station controller (BSC) and the
base stations (BTS1, BTS2), **characterized** in that
the base station controller (BSC) comprises control means (1)
which in call set-up allocate at least one of said telecommunication channels
(CH1 to CH6) to the first (BTS1) or the second (BTS2) base station for the du-
35 ration of the call and which transmit a predetermined message indicating the

allocated telecommunication channel to the base station to whom the channel is allocated, and that

the switching means (S1 to S5) of the first, and correspondingly, of the second base station (BTS1, BTS2) are responsive to said message for switching the base station transceiver units (TRX1 to TRX3) to the telecommunication channel (CH1 to CH6) assigned by said message.

5 5. A mobile system as claimed in claim 4, **characterized** in that

said telecommunication channels are circuit-switched telecommunication channels that are classified on the basis of their characteristics into at least two categories, that is, into primary telecommunication channels (CH1 to CH4) and secondary telecommunication channels (CH5, CH6) and that

said control means (1) allocate in call set-up a primary telecommunication channel (CH1 to CH4), if available, to the call, otherwise a free, secondary (CH5, CH6) telecommunication channel is allocated thereto.

6. A mobile system as claimed in claim 4, **characterized** in that the primary telecommunication channels have larger data transmission capacity or they are of better quality than the secondary telecommunication channels.

7. A mobile system as claimed in any one of claims 4 to 6, **characterized** in that said message indicating the allocated telecommunication channel (CH1 to CH6) also indicates a radio channel to be used in the call to the transceiver unit (TRX1 to TRX3) of the base station.

8. A mobile system as claimed in any one of claims 4 to 7, **characterized** in that

said mobile system is the GSM system and

said message consists of a CHANNEL ACTIVATION message in accordance with the GSM specifications part 08.58, to which is added information on the telecommunication channel allocated to the base station.

9. A mobile system base station, which comprises transceiver units (TRX1 to TRX3) for establishing a telecommunication connection by radio signals to the subscriber terminals located in the coverage area of the base station, and

switching means (S1 to S6) for switching its transceiver units (TRX1 to TRX3) to particular channels of a plurality of optional circuit-switched telecommunication channels (CH1 to CH6), **characterized** in that the

